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COMBINED DECLARATION AND POWER OF ATTORNEY

As a below named inventor, I hereby declare that:

This declaration is of the following type:

- ☒ original
- ☐ divisional
- ☐ continuation
- ☐ continuation-in-part

INVENTORSHIP IDENTIFICATION

My residence, post office address and citizenship are as stated below next to my name. I believe I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural names are listed below) of the subject matter which is claimed and for which a patent is sought on the invention entitled:

**INTEGRATED MULTI-STEP GAP FILL AND ALL FEATURE
PLANARIZATION FOR CONDUCTIVE MATERIALS**

SPECIFICATION IDENTIFICATION

The specification of which:

- ☒ is attached hereto
- ☐ was filed on _____, under Serial No. _____, executed on even date herewith; or
- ☐ Express Mail No. (as Serial No. not yet known)
- ☐ and was amended on _____ (if applicable)
- ☐ was described and claimed in PCT International Application No. _____
- ☐ filed on _____ and as amended under PCT Article 19 on _____.

ACKNOWLEDGMENT OF REVIEW OF PAPERS AND DUTY OF CANDOR

I hereby state that I have reviewed and understand the contents of the above-identified specification, including the claims, as amended by any amendment referred to above.

I acknowledge the duty to disclose all information I know to be material to patentability in accordance with Title 37, Code of Federal Regulations, §1.56,

and which is material to the examination of this application; namely, information where there is a substantial likelihood that a reasonable Examiner would consider it important in deciding whether to allow the application to issue as a patent, and

- ☐ In compliance with this duty there is attached an Information Disclosure Statement in accordance with 37 CFR §1.98.

PRIORITY CLAIM (35 U.S.C. §119)

I hereby claim foreign priority benefits under Title 35, United States Code, §119, of any provisional or foreign application(s) for patent or inventor's certificate or of any PCT international application(s) designating at least one country other than the United States of America listed below, and have also identified below any provisional or foreign application(s) for patent or inventor's certificate or any PCT international application(s) designating at least one country other than the United States of America filed by me on the same subject matter having a filing date before that of the application(s) of which priority is claimed.

☒ [X] No such applications have been filed.

☐ [] Such applications have been filed as follows:

- A. Prior foreign/PCT application(s) filed within 12 mos. (6 mos. for design) prior to this application, and any priority claims under 35 U.S.C. §119

<u>Country/PCT</u>	<u>Application No</u>	<u>Date Filed</u>	<u>Priority Claimed</u>
			<input type="checkbox"/> [] Yes <input type="checkbox"/> [] No
			<input type="checkbox"/> [] Yes <input type="checkbox"/> [] No
			<input type="checkbox"/> [] Yes <input type="checkbox"/> [] No

- B. All foreign application(s), if any, filed more than 12 mos. (6 mos for design) prior to this U.S. application

Country:
Application No:
Filing date:

- C. U.S. Provisional Application filed within 12 months prior to this application

<u>Serial No.</u>	<u>Filing Date</u>
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PRIORITY CLAIM (35 U.S.C. §120)

I hereby claim the benefit under Title 35, United States Code, §120, of any United States application(s) or PCT international application(s) designating the United States of America that is/are listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in that/those prior application(s) in the manner provided by the first paragraph of Title 35, United States Code, §112, I acknowledge the duty to disclose information that is material to the examination of this application (namely, information where there is substantial likelihood that a reasonable Examiner would consider it important in deciding whether to allow the application to issue as a patent) which occurred between the filing date of the prior application(s) and the national or PCT international filing date of this application.

☒ [X] No such applications have been filed

☐ [] Such applications have been filed, as follows:

<u>Serial No.</u>	<u>Filing Date</u>	<u>Patented</u>	<u>Pending</u>	<u>Abandoned</u>
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POWER OF ATTORNEY

I hereby appoint the following attorneys and/or agents to prosecute this application and transact all business in the Patent and Trademark Office connected therewith:

Donald Verplancken
Michael B. Einschlag
Peter J. Sgarbossa
Lawrence Edelman
Michael L. Sherrard
Raymond Kam-On Kwong
James C. Wilson
Robert W. Mulcahy
Sarah J. Brashears
B. Todd Patterson
Raymond R. Moser, Jr.
Keith M. Tackett

Registration No. 33,217
Registration No. 29,301
Registration No. 25,610
Registration No. 25,226
Registration No. 28,041
Registration No. 37,165
Registration No. 35,412
Registration No. 25,436
Registration No. 37,087
Registration No. 37,906
Registration No. 34,682
Registration No. 32,008

Send correspondence to:

Patent Counsel
Applied Materials, Inc.
P.O. Box 450-A
Santa Clara, CA 95052

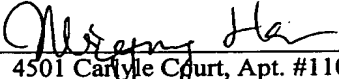
Direct telephone calls to:

B. Todd Patterson
THOMASON, MOSER & PATTERSON, L.L.P.
(713) 623-4844

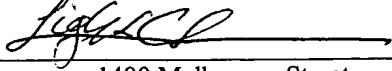
DECLARATION

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and, further, that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Sec. 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application or any patents issued thereon.

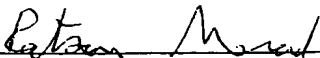
Full name of sole or first inventor: WEI-YUNG HSU

Inventor's signature:  Date: 12/6/00
Residence: 4501 Carlyle Court, Apt. #1104
Santa Clara, California 95054
Post Office Address: Same as above.
U.S.A. Country of Citizenship: TAIWAN

Full name of second inventor: LIANG-YUH CHEN

Inventor's signature:  Date: 12/06/00
Residence: 1400 Melbourne Street
Foster City, California 94404
Post Office Address: Same as above.
U.S.A. Country of Citizenship: TAIWAN

Full name of **third** inventor: RATSON MORAD

Inventor's signature: 

Date: 12/6/00

Residence:

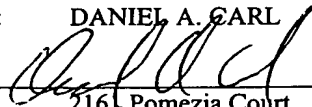
4157 Solana Drive
Palo Alto, California 94306

Post Office Address:

Same as above.
U.S.A.

Country of Citizenship: ISRAEL

Full name of **fourth** inventor: DANIEL A. CARL

Inventor's signature: 

Date: 12/13/00

Residence:

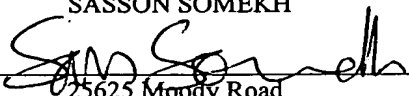
2161 Pomezia Court
Pleasanton, California 94566

Post Office Address:

Same as above.
U.S.A.

Country of Citizenship: U.S.A.

Full name of **fifth** inventor: SASSON SOMEKH

Inventor's signature: 

Date: 12/7/00

Residence:

25625 Moody Road
Los Altos Hills, California 94022

Post Office Address:

Same as above.
U.S.A.

Country of Citizenship: U.S.A.

(Declaration ends with this page)

FORM PTO-1502
(Rev. 6-02)

RECORDATION FORM COVER SHEET

U.S. Department of Commerce
Patent and Trademark Office

OMB No. 0651-0011 (exp. 4/94)

PATENTS ONLY

To the Honorable Commissioner of Patents and Trademarks: Please record the attached original document or copy thereof.

1. Name of conveying party(ies):

WEI-YUNG HSU
LIANG-YUH CHEN
RATSON MORAD
DANIEL A. CARL
SASSON SOMEKHDate
December 6, 2000
December 6, 2000
December 6, 2000
December 13, 2000
December 8, 2000Additional name(s) of conveying party(ies) attached? ☒ Yes ☐ No

3. Nature of conveyance:

☒ Assignment☐ Merger☐ Security Agreement☐ Change of Name☐ OtherExecution Date: See Above and the Attached

2. Name and address of receiving party(ies):

Name: Applied Materials, Inc.Internal Address: P.O. Box 450-A

Street Address:

City: Santa Clara State: CA Zip: 95052Additional name(s) & address(es) attached? ☐ Yes ☒ No

4. Application number(s) or registration number(s): «SerialNo»

If this document is being filed together with a new application, the execution date of the application is: March 3, 2004 (Date of Filing)

A. Patent Application No.(s)

B. Patent No.(s)

Additional numbers attached? ☐ Yes ☒ No

5. Name and address of party to whom correspondence concerning document should be mailed:

Name: Patent CounselInternal Address: APPLIED MATERIALS, INC.Street Address: P.O. Box 450-ACity: Santa Clara State: CA Zip: 950526. Total number of applications and patents involved: 17. Total fee (37 C.F.R. 3.41) \$ 40.00☐ Enclosed☒ Authorized to be charged to deposit account

8. Deposit account number:

50-1074/5614.D1/CMP/CMP/RKK

DO NOT USE THIS SPACE

9. Statement and signature.

To the best of my knowledge and belief, the foregoing information is true and correct and any attached copy is a true copy of the original document.

Robert W. Mulcahy Reg. No. 25,436
Name of Person Signing

Signature

Date

2/3/04Total number of pages including cover sheet, attachments and document: 3Mail documents to be recorded with required cover sheet information to:
Commissioner of Patents, MAIL STOP
P.O. BOX 1450
Alexandria, VA 22313-1450

FORM PTO-1562
(Rev. 8-03)

OMB No. 0651-0011 (exp. 4/94)

RECORDATION FORM COVER SHEET

U.S. Department of Commerce
Patent and Trademark Office

PATENTS ONLY

To the Honorable Commissioner of Patents and Trademarks: Please record the attached original document or copy thereof.

1. Name of conveying party(ies):

WEI-YUNG HSU
LIANG-YUH CHEN
RATSON MORAD
DANIEL A. CARL
SASSON SOMEKH

Date

December 6, 2000
December 6, 2000
December 6, 2000
December 13, 2000
December 8, 2000Additional name(s) of conveying party(ies) attached? ☒ Yes ☐ No

3. Nature of conveyance:

☒ Assignment☐ Merger☐ Security Agreement☐ Change of Name☐ OtherExecution Date: See Above and the Attached

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Name: Applied Materials, Inc.Internal Address: P.O. Box 450-A

Street Address:

City: Santa Clara State: CA Zip: 95052Additional name(s) & address(es) attached? ☐ Yes ☒ No

4. Application number(s) or registration number(s): «SerialNo»

If this document is being filed together with a new application, the execution date of the application is: March 3, 2004 (Date of Filing)

A. Patent Application No.(s)

B. Patent No.(s)

Additional numbers attached? ☐ Yes ☒ No

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Name: Patent CounselInternal Address: APPLIED MATERIALS, INC.Street Address: P.O. Box 450-ACity: Santa Clara State: CA Zip: 950526. Total number of applications and patents involved: 17. Total fee (37 C.F.R. 3.41) \$ 40.00☐ Enclosed☒ Authorized to be charged to deposit account

8. Deposit account number:

50-1074/5814.D1/CMP/CMP/RKK

DO NOT USE THIS SPACE

9. Statement and signature.

To the best of my knowledge and belief, the foregoing information is true and correct and any attached copy is a true copy of the original document.

Robert W. Mulcahy Reg. No. 25,438
Name of Person Signing

Signature

Date

2/3/04Total number of pages including cover sheet, attachments and document: 3Mail documents to be recorded with required cover sheet information to:
Commissioner of Patents, MAIL STOP
P.O. BOX 1450
Alexandria, VA 22313-1450

ASSIGNMENT FOR APPLICATION FOR PATENT

WHEREAS:

Names and Addresses of Inventors:

1)	WEI-YUNG HSU 4501 Carlyle Court, Apt. #1104 Santa Clara, California 95054	2)	LIANG-YUH CHEN 1400 Melbourne Street Foster City, California 94404
3)	RATSON MORAD 4157 Solana Drive Palo Alto, California 94306	4)	DANIEL A. CARL 2161 Pomezia Court Pleasanton, California 94566
5)	SASSON SOMEKH 25625 Moody Road Los Altos Hills, California 94022		

(hereinafter referred to as Assignors), have invented a certain invention entitled:

**INTEGRATED MULTI-STEP GAP FILL AND ALL FEATURE PLANARIZATION
FOR CONDUCTIVE MATERIALS**

for which application for Letters Patent in the United States was filed on even date herewith; and

WHEREAS, Applied Materials, Inc., a corporation of the State of Delaware, having a place of business at 3050 Bowers Avenue, Santa Clara, California 95054 (hereinafter referred to as Assignee), is desirous of acquiring the entire right, title and interest in and to said application (hereinafter referred to as Application), and the invention disclosed therein (hereinafter referred to as Invention), and in and to all embodiments of the Invention, heretofore conceived, made or discovered by said Assignors, and in and to any and all patents, inventor's certificates and other forms of protection (hereinafter referred to as Patents) thereon granted in any and all countries and groups of countries.

NOW, THEREFORE, in consideration of good and valuable consideration acknowledged by said Assignors to have been received in full from said Assignee:

1. Said Assignors hereby sell, assign, transfer and convey to Assignee the full and exclusive right, title and interest (a) in and to said Application and said Invention; (b) in and to all rights to apply for patents on said Invention in any and all countries pursuant to the International Convention for the Protection of Industrial Property or otherwise; (c) in and to any and all Applications filed and any and all Patents granted on said Invention in any and all countries and groups of countries, including each and every Application filed and each and every Patent granted on any application which is a division, substitution, or continuation of said Application; and (d) in and to each and every reissue or extension of any of said Patents.

2. Said Assignors hereby covenant and agree to cooperate with said Assignee to enable said Assignee to enjoy to the fullest extent the right, title and interest to said Invention herein conveyed in any and all countries and groups of countries. Such cooperation by said Assignors shall include prompt production of pertinent facts and documents, giving testimony, execution of petitions, oaths, specifications, declarations or other papers, and other assistance all to the extent deemed necessary or

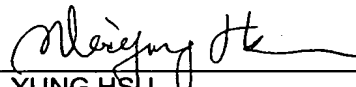
desirable by said Assignee (a) for perfecting in said Assignee the right, title and interest herein conveyed; (b) for prosecuting any of said applications; (c) for filing and prosecuting substitute, divisional, continuing or additional applications covering said Invention; (d) for filing and prosecuting applications for reissuance of any of said Patents; (e) for interference or other priority proceedings involving said Invention; and (f) for legal proceedings involving said Invention and any application therefor and any Patents granted thereon, including without limitation opposition proceedings, cancellation proceedings, priority contests, public use proceedings, infringement actions and court actions; provided, however, that the expense incurred by said Assignors in providing such cooperation shall be paid for by said Assignee.

3. The term and covenants of this agreement shall inure to the benefit of said Assignee, its successors, assigns and other legal representatives, and shall be binding upon said Assignors, their respective heirs, legal representatives and assigns.

4. Said Assignors hereby warrant and represent that they have not entered and will not enter into any assignment, contract, or understanding in conflict herewith.


IN WITNESS WHEREOF, the said Assignors have executed and delivered this instrument to said Assignee on the dates indicated below.

1) 12/06, 2000



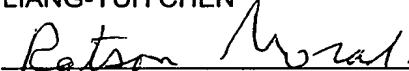
WEI-YUNG HSU

2) 12/06, 2000




LIANG-YUH CHEN

3) 12/6, 2000



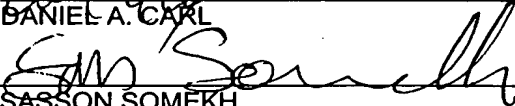
RATSON MORAD

4) 12/13, 2000



DANIEL A. CARL

4) 12/18, 2000



SASSON SOMEKH